

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q76997

Makoto NAMIKAWA, et al.

Appln. No.: 10/642,652

Group Art Unit: 1794

Confirmation No.: 3048

Examiner: Arti R. SINGH

Filed: August 19, 2003

For: CLEANING SHEETS AND METHOD OF CLEANING WITH THE SAME

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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**I. REAL PARTY IN INTEREST**

The real party in interest is Nitto Denko Corporation.

**II. RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' legal representative and the Assignee of this application are not aware of any other appeals or interferences that will directly affect, or be affected by, or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 4-7 are pending in the application.

This is an appeal from the Examiner's rejection of claims 4-7 under 35 U.S.C. § 102(b).

**IV. STATUS OF AMENDMENTS**

The Amendment submitted on May 3, 2006, is the last response submitted with amendments to the claims of the application. The Amendment filed on May 3, 2006 was entered via filing of an Request for Continued Examination on June 2, 2006. There are no outstanding amendments to the claims or to the specification in the present application.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The present invention relates to cleaning sheets for use in cleaning, e.g., various substrate-processing apparatus, systems for conveying exposure masks (reticles) in microfabrication, etc., and to a method of cleaning them with the cleaning sheets. Particularly, the invention relates to cleaning sheets and a cleaning method for substrate-processing apparatus which should be kept away from foreign particles, e.g., apparatus for producing or inspecting semiconductors, flat panel displays, and printed wiring boards, or for systems for conveying exposure masks (reticles) in microfabrication or the like. *See page 1, lines 4-14.*

An object of the invention is to provide cleaning sheets and a cleaning method with which a substrate can be conveyed without fail even into, in particular, a substrate-processing apparatus or conveying system having a high temperature inside and foreign particles adherent to inner parts of the apparatus or to the conveying system can be easily removed without fail.

*See page 2, line 26 to page 3, line 6.*

According to the present invention, a sheet having a cleaning layer, a transfer member, e.g., a substrate, having the sheet bonded thereto, or the like is conveyed so as to remove foreign particles adherent to inner parts of a substrate-processing apparatus or to other parts, then use of a cleaning layer made of a thermoset resin having porosity is effective in easily separating and removing the foreign particles without fail without posing any of the problems described above. *See page 3, lines 7-17.*

The cleaning layer in each cleaning sheet of the invention comprises a thermoset resin having porosity. By using a thermoset resin as the cleaning layer in the invention, foreign

particles of various sizes can be caught and removed with the porous cleaning layer without fail while preventing the foreign particles from shedding and without arousing a conveyance trouble. *See page 4, lines 9-15; see also page 4, line 17 to page 5, line 19.* The thermoset resin cleaning layer has substantially no tackiness. *See page 5, lines 6-14.*

The pressure-sensitive adhesive layer of the invention comprises a thermoplastic resin. *See page 6, lines 5-6; see also page 6, line 7 to page 7, line 13.*

A cleaning sheet of the invention includes a support. *See page 7, lines 14-15; see also page 7, lines 16-26.*

Additionally, the cleaning sheet can be applied to a transfer member, such as any of various substrates or other tapes/sheets, through the pressure-sensitive adhesive layer comprising a thermoplastic resin to give a transfer member having a cleaning function. *See page 7, lines 4-9.* By conveying this transfer member having a cleaning function into an apparatus or conveying system and bringing it into contact with the part to be cleaned, this part can be cleaned. *See page 7, lines 10-13.*

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The issue on appeal is whether the Examiner improperly finally rejected claims 4-7 under 35 U.S.C. § 102(b) as allegedly being anticipated by Tanaka et al. (US 6,170,115).

**VII. ARGUMENT**

Claims 4-7 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Tanaka et al. (U.S. Patent 6,170,115).

For the reasons below, it is respectfully submitted that Tanaka does not anticipate claims 4-7 as required under 35 U.S.C. § 102.

Claim 4 is directed to a cleaning sheet consisting of a support, a thermoset resin cleaning layer having porosity formed on one side of the support, and a pressure-sensitive adhesive layer comprising a thermoplastic resin formed on the other side of the support. Claim 6 is directed to a transfer member having a cleaning function, which comprises a transfer member and the cleaning sheet of claim 4 bonded thereto through the press-sensitive adhesive layer comprising a thermoplastic resin.

The Examiner takes the position that Applicant has failed to distinguish the claimed laminate from the five layered embodiment of Tanaka. Specifically, the Examiner asserts that claim 4 recites the transitional phrase "comprising", and thus does not exclude the additional two layers of Tanaka.

Appellants respectfully disagree.

Claim 4, as amended in the Amendment filed on May 3, 2006 and entered on June 2, 2006, recites the transitional phrase "consisting of", and thus excludes the additional layers.

Specifically, Tanaka discloses that the cleaning tape can have a structure where an adhesive layer and porous screen are applied to both sides of a tape body. The resulting structure would be porous screen/adhesive layer/tape body/adhesive layer/porous screen. Although such structure has an adhesive layer on one side of the tape body and a porous

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**Attorney Docket No.: Q76997**

screen on the other side of the tape body, claim 4 is not anticipated because it recites the transitional phrase "consisting of", thereby excluding additional layers in the structure.

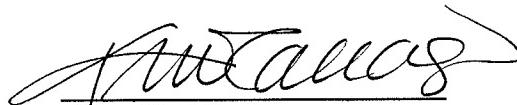
For at least the foregoing reason, it is respectfully submitted that Tanaka does not anticipate claims 4-7.

In view of the above, Appellants submit that the Examiner's rejection is improper and should be reversed.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: June 12, 2008

**CLAIMS APPENDIX**

**CLAIMS 4-7 ON APPEAL:**

4. A cleaning sheet consisting of a support, a thermoset resin cleaning layer having porosity formed on one side of the support, and a pressure-sensitive adhesive layer comprising a thermoplastic resin formed on the other side of the support.
  
5. The cleaning sheet of claim 4, wherein the thermoset resin cleaning layer having porosity has substantially no tackiness.
  
6. A transfer member having a cleaning function, which comprises a transfer member and the cleaning sheet of claim 4 bonded thereto through the pressure-sensitive adhesive layer comprising a thermoplastic resin.
  
7. A method of cleaning, which comprises conveying the transfer member of claim 6.

**EVIDENCE APPENDIX:**

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

None.

**RELATED PROCEEDINGS APPENDIX**

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

None.

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**SUBMISSION OF APPEAL BRIEF**

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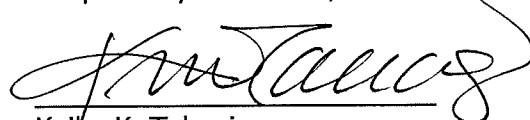
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Submitted herewith please find an Appeal Brief. Please charge the statutory fee of \$510.00 to Deposit Account No.: 19-4880. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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